INTERNATIONAL SEARCH REPORT

In 181 Application No
PCT/US2005/001025

A. CLASSIF IPC 7	B25B27/00 B60J10/00				
According to	International Patent Classification (IPC) or to both national classification	on and IPC			
B. FIELDS	SEARCHED				
Minimum do	cumentation searched (classification system followed by classification B65H B23P B25B B62D B60J	symbols)			
Documentat	ion searched other than minimum documentation to the extent that suc	h documents are included in the fields sea	arched		
Electronic da	ata base consulted during the international search (name of data base	and, where practical, search terms used)			
EPO-In	ternal, PAJ				
C. DOCUME	ENTS CONSIDERED TO BE RELEVANT				
Category °	Citation of document, with indication, where appropriate, of the relev	ant passages	Relevant to claim No.		
A.	US 4 172 313 A (TAKAHASHI, KIHEI) 30 October 1979 (1979-10-30) the whole document		1,2,4-7		
A	US 5 735 032 A (STONE ET AL) 7 April 1998 (1998-04-07) the whole document		1		
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 23, 10 February 2001 (2001-02-10) & JP 2001 171570 A (KANSAI PAINT (26 June 2001 (2001-06-26) abstract	O LTD),	1,8,9,		
		/			
X Furt	her documents are listed in the continuation of box C.	χ Patent family members are listed I	n annex		
° Special co	ategories of cited documents:				
'A' docume	ent defining the general state of the art which is not dered to be of particular relevance	T* later document published after the Integer or priority date and not in conflict with cited to understand the principle or the invention X* document of particular relevance; the cited to the principle or the cited to the principle or the cited the principle or the princ	the application but eory underlying the		
which citatio	ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another on or other special reason (as specified)	cannot be considered novel or cannot involve an inventive step when the do Y' document of particular relevance; the cannot be considered to involve an inventional cannot be considered.	be considered to cument is taken alone laimed invention ventive step when the		
other 'P' docum	ent referring to an oral disclosure, use, exhibition or means ent published prior to the international filing date but than the priority date claimed	document is combined with one or moments, such combination being obvious in the art. & document member of the same patent	us to a person skilled		
·	actual completion of the international search	Date of malling of the international sea			
	2 May 2005	25/05/2005			
Name and	mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2	Authorized officer			
	NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Raven, P			

INTERNATIONAL SEARCH REPORT

Inter Application No
PCT/US2005/001025

Catalon of Occument, With Indication, where appropriate, of the relevant passages Relevant to cluff No.	
vol. 2003, no. 12, 5 December 2003 (2003-12-05) 8 JP 2003 285970 A (KOKOKU KIKO KK), 7 October 2003 (2003-10-07) abstract	
·	

1

INTERNATIONAL SEARCH REPORT

Information on patent family members

Int nal Application No
PCT/US2005/001025

Patent document cited in search report	-	Publication date		Patent family member(s)	-	Publication date
US 4172313	A	30-10-1979	JP	1192197	C	29-02-1984
	•		JP	53105842	Α	14-09-1978
			JP	58025836	В	30-05-1983
			JP	53116142	U	14-09-1978
		·	JP	57060950	Y2	25-12-1982
•			JP	53123233	U	30-09-1978
			JP	57025814	Y2	04-06-1982
			JP	1211804	C	12-06-1984
			JP	53114243	Α	05-10-1978
			JP	58040635	В	07-09-1983
			AU	3330478	A	23-08-1979
			CA	1079039	A1	10-06-1980
			DE	2808004	A1	31-08-1978
			DE	2857191	B2	12-03-1981
			FR	2381604	A1	22-09-1978
•			GB	1588213	Α	15-04-1981
			HK	36786	Α	30-05-1986
			IT	1107296	В	25-11-1985
			MY	23785	Α	31-12-1985
			NL	7801875	Α	28-08-1978
			PH	5807	U	18-07-1985
			SG	84683	G	11-01-1985
·			AU	514790	B2	26-02-1981
US 5735032	Α	07-04-1998	NONE			
JP 2001171570	Α	26-06-2001	CA	2385753	A1	- 12 - 04-2001
			WO	0125077	A1	12-04-2001
			US	6748993	B1	15-06-2004
JP 2003285970	Α	07-10-2003	NONE			